
CORRELATION BETWEEN FAST FOOD CONSUMPTION AND OBESITY IN WOMEN OF FERTILIZING AGE INTUBAN, EAST JAVA

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ABSTRACT

Obesity is a condition with excessive fat accumulation due to an imbalance between energy intake and energy used over a long period. This study aimed to determine the relationship between fast food consumption and obesity in women of childbearing age. This study uses an analytical research method with a cross-sectional approach. The population of this study was the population of this study was 234, with a sample of 148 respondents, determined using a simple random sampling technique. The Independent variable is fast food consumption, dependent variable is obesity. The research analysis uses Spearman's correlation statistical test. The research showed that some respondents had a frequency of fast-food consumption in the bad category. The results of statistical tests show that there is no significant relationship between fast food consumption and obesity with $p\text{-value} = 0.341 > 0.05$. Although fast food consumption in the bad category did not show a significant relationship with obesity, other factors such as genetic factors, socioeconomic status, and environmental influences still play a role in obesity risk. Other factors can influence obesity such as genetic factors, socioeconomic status, environmental factors, and also the use of contraception.

Keywords: Obesity; Fast Food Consumption; Women of Childbearing Age (WUS)

1. INTRODUCTION

Indonesia is one of the developing countries that has major nutritional problems, namely the problem of under nutrition and the problem of over nutrition. Over nutrition (obesity) is a person's condition where there is an imbalance between the calories entered into the body and the calories excreted each day (Ermona & Wirjatmadi, 2018). The occurrence of obesity is closely related to diet, social status, and imbalance between body activity, eating habits, and food consumption. However, what needs to be paid more attention to is that the emergence of obesity is more determined

by too much energy intake, too little activity, or physical exercise. Along with population growth, obesity has been increasing for approximately 20 years along with habits, consumption patterns, and lifestyle (Zuhriyah, 2016). The impact of obesity is quite extensive on various chronic degenerative diseases such as hypertension, coronary heart disease, stroke, cancer, and type 2 diabetes (Sineke et al., 2019).

According to the World Health Organization (WHO), obesity is a global epidemiological problem that poses a serious threat to world public health, with 2.8 million people dying from diabetes and

heart disease as a result of obesity. The nutritional status of adults over 18 years is dominated by the problem of obesity, where teenagers are included in the scope of women of childbearing age. In 2016, 39% of adults aged 18 years and over were overweight and 13% were obese. In Indonesia, the prevalence of obesity was 13.6% (Riskesmas) 2018, indicating an increase in the prevalence of obesity in the population aged >18 years from 15.4% (2013) to 21.8% (2018) (Kemenkes RI, 2022). The prevalence of obesity in East Java reaches 16% in adult women (Kesehatan, 2015).

Many factors can influence obesity in women, especially in productive age, namely internal factors and external factors. Internal factors include age, gender, physical condition, and infectious diseases. While external factors include diet, nutritional knowledge, socio-cultural environment, and physical activity (Maulida, 2024). One of the factors that influences obesity is fast food consumption.

The increase in obesity in women, especially those of productive age, is currently occurring because they consume more modern fast food which can be categorized as junk food, which contains more energy and less fiber (Asnaini, 2017). The causative factor of obesity at the current level of fast-food consumption is relatively high, where the average adult woman consumes fast food 3-4 times/week. Fast food or junk food is described as unhealthy food or has an unbalanced nutritional content. Fast food generally contains a lot of sugar, flour, trans fat, saturated fat, salt, and

preservatives or colorings. In addition, fast food is very identical to foods that are high in calories and low in micro nutrients such as vitamins, minerals, amino acids, and fiber. The high calorie and sugar content in fast food can contribute to the incidence of obesity (Asnaini, 2017).

This needs attention because excess nutrition that occurs in adolescence tends to continue into adulthood and old age. Excess nutrition is one of the risk factors for degenerative diseases (Oktaviani, 2012). Thus, the role of women in general through consumption with awareness of good nutrition, especially for women, is a concern for handling obesity.

Tuban Regency is one of the regencies in East Java that has some areas in the form of coastal areas, the Tuban coastal areas are in rural areas and some are in urban areas, the urban coastal areas in Tuban are the Sidomulyo area which is located in Tuban District, Tuban Regency. Sidomulyo Village is a coastal village with a dense population, the distance between houses that are close together, and the lack of land for activities outside the home, causing a sedentary life in women, especially those that can trigger obesity. In addition, population density causes many food or snack businesses to be available, such as many selling fast food and food that is processed by frying, making it easier for people to get food without having to spend more energy because the sellers trade by going around offering their wares around the village.

Based on an initial survey conducted by researchers by directly measuring BMI on 111 (50%) of the fertile female

population aged 15–49 years in the Coastal Area of Sidomulyo Village, Tuban District, the results showed that 105 (95%) respondents were overweight or obese while 6 (5%) respondents had normal body weight.

From the initial survey, researchers were interested in conducting research related to the relationship between fast food consumption and obesity in women of childbearing age in the coastal area of Sidomulyo Village, Tuban District, Tuban Regency.

2. METHOD AND ANALYSIS

This study uses a correlational design with a cross-sectional approach, aiming to determine the relationship between breakfast habits, fast food consumption, and physical activity with obesity among women of childbearing age in Sidomulyo Village, Tuban District, Tuban Regency. Measurement scales, micrometers, and questionnaire instruments.

The population in this study were women of childbearing age aged 15–49 years who had overweight and obese nutritional status in Sidomulyo Village, Tuban District. With a population of 234 respondents. The sample in this study was the community of Sidomulyo Village, Tuban District aged 15–49 years.

3. RESULT AND DISCUSSION

Table 1. Frequency Distribution of Fast Food Consumption Data in Women of Childbearing Age in the Coastal Area of Sidomulyo, Tuban District, Tuban Regency.

Category	Frequency	Percentage (%)
Good	67	45,2
Not Good	81	54,7
Total	148	100

Source: Primary Data Research Year (2024)

Based on Table 1, it is known that the majority of respondents have fast food consumption in the bad category with a percentage of 54.7% (81 respondents) while almost half of the respondents are in the good category with a percentage of 45.2% (67 respondents).

Table 2. Distribution of Obesity in Women of Childbearing Age 15–49 Years in the Coastal Area of Sidomulyo Village, Tuban District, Tuban Regency.

Category	Frequency	Percentage (%)
<i>Overweight</i>	31	20,9
Obesitas 1	83	56,0
Obesitas 2	34	22,9
Total	148	100

Source: Primary Data Research Year (2024)

Based on Table 2, it is known that most respondents have BMI obesity 1 with a percentage of 56% (83 respondents), while a small number of respondents experience obesity 2 with a percentage of 22.9% (34 respondents) and a small number of respondents experience overweight with a percentage of 20.9% (31 respondents).

Table 3. Correlation between Fast Food Consumption and Obesity in WUS.

Consumption	IMT			Total
	<i>Over-weight</i>	Obesity 1	Obesity 2	
Good	18 (26,9%)	34 (50,7%)	15 (22,4%)	67 (100%)
Bad	14 (17,3%)	48 (59,3%)	19 (23,5%)	81 (100%)
Total	32 (21,6%)	82 (55,4%)	34 (22,9%)	148 (100%)

Source: Researcher's Primary Data Year (2024).

Based on Table 3, it can be seen that most of the respondents have fast food intake criteria with a good category and have an obesity BMI of 1 (50.7%), and most of the respondents who have fast food consumption criteria with a bad category and have an obesity BMI of 1 (59.3%).

Based on the results of statistical tests using the Spearman correlation test using SPSS software version 22 for window, the p-value is 0.341 so that $p > 0.05$ which indicates that there is no significant relationship between fast food consumption and obesity, the correlation coefficient value is 0.079 which means H_1 is accepted with very strong relationship strength.

DISCUSSION

In the research conducted by researchers. Based on Table 3, it is known that out of 148 respondents, (54.7%) most respondents consumed fast food in the bad category.

Excessive consumption of fast food does not directly cause obesity. Still, other factors can contribute to an increased risk

of obesity such as if it is not balanced with a healthy diet and other active lifestyles. Other factors that influence genetic obesity, such as physical activity levels and overall diet, also play an important role in the development of obesity (Asnaini, 2017). A study conducted by Radwan et al. in Jeddah, Saudi Arabia, showed that the pattern of consuming fast food high in fat and sugar accumulated with the high incidence of obesity in women of childbearing age, including those with PCOS. This study also underlines that fast food is often the main cause of hormonal imbalance and weight gain which is difficult to control in PCOS patients (Radwan et al., 2023).

A study by Wang et al. showed that maternal consumption of ultra-processed foods during child-rearing significantly increased the risk of overweight and obesity in children. In this prospective cohort study, it was found that children of mothers with high levels of ultra-processed food consumption had a 26% higher risk of obesity compared to children of mothers with low levels of ultra-processed food consumption. This finding remained significant after adjusting for lifestyle factors in both mothers and children (Wang et al., 2022). A study by Mandoura et al. showed that factors such as the availability of fast food and societal preferences for these foods may increase the prevalence of obesity among adults in Jeddah. A study by Bohara et al. also revealed that excessive consumption of fast food among adolescents in Nepal contributed to an increased risk of obesity (Bohara et al., 2021; Mandoura et al., 2017).

A small proportion of women of childbearing age have a fast food diet in the

good category (45.2%). they do not consume fast food regularly and excessively, and often in smaller portions.

Fast food or ready-to-eat food is food that is generally produced by the food processing industry with high technology and provides various addictive substances to preserve and provide flavor to the product, usually fast food in the form of side dishes in instant noodle packaging, nuggets, etc. In general, fast food is divided into several types, namely in terms of packaging type, processing techniques, and so on. Fast food is divided into various types including fried foods, canned foods, pickled foods, processed meat foods (hamburgers, sausages, etc.), offal, processed cheese, and baked or grilled foods (Ranggayuni & Nuraini, 2021).

Obesity in women is often associated with junk food consumption, but in moderate amounts, the impact can be more controlled. Research shows that moderation in the consumption of high-calorie foods such as junk food can help prevent the accumulation of excess body fat, although other factors such as lifestyle and physical activity also affect nutritional status and body weight (Gketsios et al., 2023). Research by Sandoval-Insausti et al. (2020) showed that consumption of ultra-processed foods, which are generally included in the junk food category, is associated with abdominal obesity in older adults. Although excessive consumption of junk food can increase the risk of obesity, controlling the amount of consumption and choosing healthier types of food can help reduce the negative impact on the body, including in women. Therefore, moderation in junk food consumption is an important

key to maintaining ideal body weight and overall body health.

Fast food is usually considered as junk that is bad for you nutritionally, halal and good food and drinks are highly recommended in Islam, this means more than just eating to satisfy hunger, food and drinks must also provide positive effects on health in the short and long term. Consuming too much fast food can interfere with and damage health such as, the body becomes fat or obese and the emergence of cardiovascular disease (Izhar, 2020).

Based on the theory and facts, as well as the results of the ffq questionnaire conducted by researchers, it is argued that almost all respondents have fast food consumption in the bad category. This is because they often consume large portions but do not exceed the total daily energy intake. Therefore, even though they often consume fast food, fast food itself cannot directly cause obesity. Fast food does not contribute to weight gain if it is not the main source of nutrition for the person who eats it (Izhar, 2020). It can be said that fast food intake does not contribute much to daily energy intake. Excessive consumption of calories without sufficient physical activity can cause body fat accumulation and cause obesity. According to an internal medicine specialist at Unair (Boushey et al., 2020), not all obesity is caused by food intake, it can also be due to hypothyroidism, adrenal hormone disorders and so on.

Consumption of plant protein is associated with lower body mass index in women of reproductive age, which may affect maternal health status and the risk of obesity in children (Sistia et al., 2023). Research shows that maternal adherence

to a healthy lifestyle before and during pregnancy, including physical activity, healthy diet, and weight management, is associated with the risk of obesity in children later in life (Dhana, 2019). Other studies have also highlighted the importance of family lifestyle, access to healthy foods, and nutrition education in influencing individual weight and health status (Negrea et al., 2024).

Based on the research results, the relationship between excessive food intake and obesity is not always direct. This is in line with the findings of Zuhriyah, (2016), and Ermona & Wirjatmadi, (2018), which show that other factors such as physical activity, level of nutritional knowledge, and overall diet also play a role in determining nutritional status. In addition, Mintarsih et al. (2022) also revealed the importance of early detection of other risk factors such as lifestyle and environment in influencing nutritional status. Thus, excessive food intake may not have a significant effect on obesity if it is not accompanied by other supporting risk factors, such as low physical activity or poor quality of food consumed.

4. CONCLUSION

Based on research entitled "The Relationship between Breakfast Habits, Fast Food Consumption and Physical Activity with Obesity in Women of Childbearing Age (In the Coastal Area of Sidomulyo Village, Tuban District, Tuban Regency)" it can be concluded that there is no significant relationship between fast food consumption and obesity in women aged fertile in the coastal area of

Sidomulyo village, Tuban District with a value of ($p = 0.341$).

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